



California Natural Resources Agency
DEPARTMENT OF FISH AND GAME
Central Region
1234 East Shaw Avenue
Fresno, California 93710
(559) 243-4005
<http://www.dfg.ca.gov>

ARNOLD SCHWARZENEGGER, Governor
DONALD KOCH, Director



May 21, 2009

Mary Adams
Central Coast Regional Water
Quality Control Board
895 Aerovista Place, Suite 101
San Luis Obispo, California 93401

**Subject: Proposed Revisions to the 303(d) List of Impaired Water Bodies and
Consideration of an Integrated Assessment Report for the Central Coast
Region**

Dear Ms. Adams:

The California Department of Fish and Game owns and manages several large properties in and around Elkhorn Slough, including the Elkhorn Slough National Estuarine Research Reserve (ESNERR). The ESNERR research staff has been collecting high caliber water quality data for the last 20 years in Elkhorn Slough. Based on their results, we support and recommend certain listings to the Central Coast's 303(d) list that pertain to Elkhorn Slough and its adjacent waters. Many of our suggestions are a result of alarming trends based on ESNERR water quality monitoring results.

The poor water quality in Elkhorn Slough has produced highly eutrophic conditions that have the potential to harm local fauna. The negative consequences of eutrophication in estuarine environments causes much concern because it can increase primary productivity, leading to increases in benthic oxygen demand that can cause diel crashes in dissolved oxygen. This crash in dissolved oxygen has deleterious effects to species such as clams, sharks, rays, and bottom fish. Crashes in dissolved oxygen can also lead to trophic collapses because habitat of prey items becomes limited due to hypoxic conditions. Elkhorn Slough has a rich assemblage of marine mammals, fish, invertebrates, and shorebirds that are impacted by poor water quality.

Water quality results collected by ESNERR scientists supports our recommendations discussed below for impaired water body listings. The results collected by ESNERR is of high quality and, as of 2006, a Quality Assurance Project Plan (QAPP) has been approved by the Central Coast Regional Water Quality Control Board (CCRWQCB) for our suggested listings. ESNERR staff can also provide additional data in the future to assist in the Total Maximum Daily Load (TMDL) process.

Mary Adams
May 21, 2009
Page 2

Given the high number of proposed TMDLs for the proposed revisions, we are limiting our suggestions and recommendations to Nutrients and Low Dissolved Oxygen for Elkhorn Slough and its adjacent water bodies. The limited recommendations accomplish two tasks. First, it reduces the number of TMDLs that need to be supported by CCRWQCB during this time of limited resources. Second, it focuses on the two end members of eutrophication problems in Elkhorn Slough: high nutrients and low dissolved oxygen.

We support the proposed TMDL listings for low dissolved oxygen in Bennett Slough, Carneros Creek, Elkhorn Slough, Moro Cojo Slough, Moss Landing Harbor, Old Salinas River, and Tembladero Slough.

We support the proposed TMDL listing for nitrate in Tembladero Slough.

We recommend a TMDL listing for nitrate in Bennett Slough, Carneros Creek, Elkhorn Slough, Moro Cojo Slough, Moss Landing Harbor, and Old Salinas River.

We recommend a TMDL listing for phosphate in Bennett Slough, Carneros Creek, Elkhorn Slough, Moro Cojo Slough, Moss Landing Harbor, Old Salinas River, and Tembladero Slough.

We recommend a TMDL listing for ammonia in Bennett Slough, Elkhorn Slough, and Moss Landing Harbor. We oppose the TMDL delisting of ammonia for Tembladero Slough.

Thank you for considering these recommendations. If you need any additional information please contact Becky Suarez, ESNERR Manager, at (831)728-2822, extension 302, or bsuarez@dfg.ca.gov.

Sincerely,

A handwritten signature in cursive script that reads "Dean Mauston for".

Jeffrey R. Single, Ph.D.
Regional Manager

cc: Andrew Gordus, Ph.D.
Department of Fish and Game

Becky Suarez
Department of Fish and Game